

Notice of Allowability

Application No.

09/910,862

Applicant(s)

KAWADA ET AL.

Examiner

Art Unit

Jean E. Lesperance

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed June 20, 2005.
2. ☒ The allowed claim(s) is/are 1,3-8,10-15 and 17-26 and renumbered as 1-23.
3. ☒ The drawings filed on July 24, 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

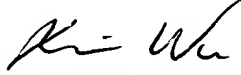
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


XIAO WU
PRIMARY EXAMINER

DETAILED ACTION

1. The amendment filed June 20, 2005 is entered and claims 1, 3-8, 10-15 and 17-26 are pending.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Juan Carlos Marquez on September 2, 2005.

Please amend claims 1, 7, and 15 as follows:

1. (Currently Amended) A liquid crystal display device comprising:
a liquid crystal panel having a display area and a peripheral area;
a backlight being disposed at a rear side surface of the liquid crystal panel; and
a diffusing sheet and a prism sheet lying between the rear side surface of the liquid crystal panel and the backlight,
wherein the backlight is provided by a substantially rectangular-shaped light guide plate and a linear lamp being disposed along an incidence plane provided at one side of the light guide plate,

a light emission control pattern having a plurality of [straight] fan-shaped grooves slanted to one side of the light guide plate and formed at a corner portion of the side of the light guide plate, along which an end portion of the linear lamp is adjacent to, on a back surface except for a center portion of the light guide plate,

the center of the fan-shaped grooves is positioned outside an end of the corner portion of the light guide light plate, and

the plurality of the [straight] fan-shaped grooves are overlapped with the display area and the peripheral area of the liquid crystal panel.

7. (Currently Amended) A liquid crystal display device comprising:

a liquid crystal display panel having a display area and a peripheral area;

a backlight; and

a prism sheet disposed between the liquid crystal panel and the backlight,

wherein the backlight is provided by a light guide plate and a

linear lamp being disposed along at least one side of the light guide plate,

a plurality of [straight] fan-shaped grooves are formed on a back surface of the light guide plate and formed at a corner portion of the side of the light guide plate, along which an end portion of the linear lamp is adjacent to, except for a center portion of the light guide plate,

the center of the fan-shaped grooves is positioned outside an end of the corner portion of the light guide light plate, and

the plurality of [straight] fan-shaped grooves are overlapped with the display area and the peripheral area.

15. (Currently Amended) A liquid crystal display device comprising:
a liquid crystal display panel having a display area and a peripheral area;
a light guide plate;
a prism sheet disposed between the liquid crystal display panel and the light guide plate; and
a linear lamp disposed along one side of the light guide plate,
wherein the back surface of the light guide plate has a plurality of first [straight] fan-shaped grooves and a plurality of second [straight] fan-shaped formed at both corner areas of the side of the light guide plate, along which an end portion of the linear lamp is adjacent to, except for a center portion of the light guide plate,
the plurality of first [straight] fan-shaped grooves are extended in a first direction slanted to the side of the light guide plate and the plurality of second [straight] fan-shaped grooves are extended in a second direction slanted to the side of the light guide plate,
the center of the first and second fan-shaped grooves is positioned outside an end of the corner portion of the light guide light plate, and
the plurality of first and second [straight] fan-shaped grooves are overlapped with the display area and the peripheral area of the liquid crystal panel.

Allowable Subject Matter

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3. Claims 1, 3-8, 10-15 and 17-26 are allowed.

4. The following is an examiner's statement of reasons for allowance: the claimed invention is directed to a liquid crystal display device.

Independent claim 1 identifies a uniquely distinct feature "a plurality of fan-shaped grooves are formed on a back surface of the light guide plate and formed at a corner portion of the side of the light guide plate, along which an end portion of the linear lamp is adjacent to, except for a center portion of the light guide plate, the center of the fan-shaped grooves is positioned outside an end of the corner portion of the light guide light plate".

Independent claim 7 identifies a uniquely distinct feature "a plurality of fan-shaped grooves are formed on a back surface of the light guide plate and formed at a corner portion of the side of the light guide plate, along which an end portion of the linear lamp is adjacent to, except for a center portion of the light guide plate, the center of the fan-shaped grooves is positioned outside an end of the corner portion of the light guide light plate".

Independent claim 15 identifies a uniquely distinct feature "the plurality of first fan-shaped grooves are extended in a first direction slanted to the side of the light guide plate and the plurality of second fan-shaped grooves are extended in a second direction slanted to the side of the light guide plate, the center of the first and second fan-shaped grooves is positioned outside an end of the corner portion of the light guide light plate".

The closest art, Yuuki et al. as discussed above, either singularly or in combination, fails to anticipate or render obvious the above limitations obvious.

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5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached on (571) 272-7603.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

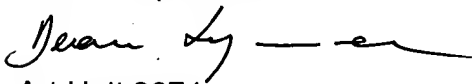
or faxed to:


(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance


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XIAO WU
PRIMARY EXAMINER